SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

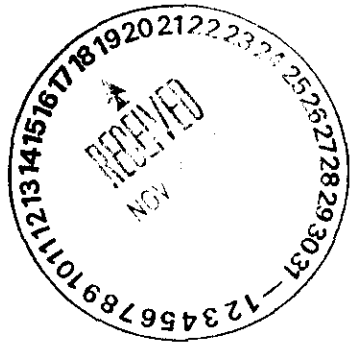
SDG 05I-4736-01 SAF-RC-001

Rad only X Chem only Rad & Chem

X Complete Partial

300 Area 334A Bldg

Cover Page



Report Identification Number: 05I-4736-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R33400 J451
Payroll#: 72570

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
14 Nov 2005	J10JN9	05I44451	NMAM 7300M	G05BJ011	G WIPE
14 Nov 2005	J10JN8	05I44452	NMAM 7300M	G05BJ011	G WIPE
14 Nov 2005	J10JN7	05I44453	NMAM 7300M	G05BJ011	G WIPE
14 Nov 2005	J10JN6	05I44454	NMAM 7300M	G05BJ011	G WIPE

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the contract specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager or the Manager's designee.

Name: Lisa M. Reid
Title: Chemist
Date: November 18, 2005

DATA CHEM LABORATORIES

Case Narrative Page

Report Identification Number: 05I-4736-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
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General Set Information: There are 4 samples in set 05I-4736-01 and 4 samples in set 05I-4737-01 for a total of 8 samples. The samples were analyzed for cadmium and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium and cadmium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of ± 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.1 ug/sample.

Method Blank Analysis: No beryllium nr cadmium was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

Dilution(s): None

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch.

Case Narrative Page

The LCS results were within the control limits of ± 20%. The Relative Percent Differences (RPDs) between the LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: One sample in this batch was replicated. The RPDs between the samples and the replicates were within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples (µg/sample) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination (µg/L)

B = Concentration factor from sample preparation

$$= \frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$$

C = Dilution performed at time of analysis

Example Calculation: (1 µg/L) x (0.025 L/sample) x (1) = 0.025 µg/sample

Miscellaneous Comments: None.

Report Page

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SAF#: RC-001 / R33400 J451
Payroll#: 72570

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample	
J10JN9	05I44451	17 Nov 2005	<0.01	U	<0.1	U
J10JN8	05I44452	17 Nov 2005	<0.01	U	<0.1	U
J10JN7	05I44453	17 Nov 2005	<0.01	U	<0.1	U
J10JN6	05I44454	17 Nov 2005	<0.01	U	<0.1	U
		Limit of Detection (LOD)	0.01		0.1	
		Required Detection Limit (RDL)				

U - Parameter not detected above LOD.
J - Parameter between LOD and RDL.

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547
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E-mail: lab@datachem.com

QC Summary Page

Report Identification Number: 05I-4736-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001 / R33400 J451
Payroll#: 72570

Batch ID: G05BJ011

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-238337-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-238337-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-238337-1	LCS	Beryllium	µg/sample	11.0	NA	10.0	110.	NA
QC-238337-1	LCS	Cadmium	µg/sample	32.5	NA	30.0	108.	NA
QD-238337-1	LCSD	Beryllium	µg/sample	11.2	11.0	10.0	112.	2.36
QD-238337-1	LCSD	Cadmium	µg/sample	33.4	32.5	30.0	111.	2.50

MB - Method Blank
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
LD - Laboratory Duplicate

NA - Not Applicable
ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS – LCSD|) / ((LCS + LCSD)/2.0)) * 100.
MS, MSD Relative Percent Diff. = ((|MS – MSD|) / ((MS+ MSD)/2.0)) * 100.
LD Relative Percent Diff. = ((|Parent – LD|) / ((Parent + LD)/2.0)) * 100

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COC Page

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Washington Closure Hanford

DSI 4736.01

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: CJ Williams	Company Contact: Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator: Joan H. Kessner	Data Turnaround: 24 hrs
Payroll #: 72520	Sampling Location: 300 area / 334A Bldg	SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R33400 J451	SAF No. RC-001	
Type of Sample: Be wipes		ANALYSIS METHOD (SPECIFIC): NIOSH 7300	Method of Shipment: Fed EX	
Shipped To: Data Chem Salt Lake City UT	Wipe Sample Media: Ghost ☐ Yes ☒ No; Other ____		Bill of Lading/Air Bill No. 854193375605	
POSSIBLE SAMPLE HAZARD/REMARKS: Be / Cd	MATRIX: A - AIR; WI - WIPE; X - OTHER			
Special Handling and/or Storage: N/a				

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ___ cm²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cadmium			
				Preservation (i.e., cooling required, etc.)	No	No	No	No	No	No			
J10JN9	WI	11-14-05	Blanks					X		X			DSI 4451
J10JN8	↕	↕	Blanks					X		X			52
J10JN7	↕	↕	100 cm²					X		X			53
J10JN6	WI	11-14-05	100 cm²					X		X			54

CJW 11-15-05 (unused rows and columns lined out)

WCH-SH-202 (08/29/2005)

Enter on line below the first Sample Number from Page One:

J10JN9

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Seal	DATE / TIME	Received By/Seal	DATE / TIME
CJWilliams / Cynthia Williams	11-14-05 / 1615	3746 B106 Rm 16 locked cabinet	11-14-05 / 1615
Patrick Vidit	11-16-05 1430	David St. John	11/16/05 1430
David St John WCH	11/16/05 1500	Fed Ex	
FedEx		Meredith	17Nov/2005
Meredith	17Nov/2005		

LABORATORY SECTION	Received By	Title	DATE / TIME
	Meredith		17Nov/2005

REVIEWED BY: ______________________ DATE: ______________

PRINT/SIGN NAME

WCH-SH-202 (08/29/2005)

Page 2 of 2

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